

Agency has included *Adenovirus* into the "Contamination Candidate List" among the microorganisms to monitor to warrant foods and environment health. Aim of this study is to improve knowledge about *Adenovirus*, *Norovirus* and HAV diffusion in shellfishes, vegetables, waters and environmental swabs samples.

Methods: Specimens were collected from food-production centers, hospitals, military and school canteens from January 2008 to October 2009. They were tested through biomolecular methods (Nested RT-PCR, Nested PCR and sequencing) and virus isolation in cell lines (A549 and FrhK-4).

Results: 19 samples of a total of 270 tested, resulted positives by Nested PCR for Adenovirus and 4 of them were positive also for virus isolation in A549 cell lines. Only one mussel sample was positive through Nested RT-PCR for HAV and negative by virus isolation into FrhK4. Sequence analysis confirmed the results and showed the presence of Adenovirus serotype 2 and 41.

Conclusion: These results support the hypothesis that Adenovirus serotypes 2 and 41 are the most frequent contaminants and their role as indicators of viral environmental contaminations.

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Gastroenteritis outbreak investigation in Adamawa State Nigeria, 2009

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Background: In developing countries *Vibrio cholerae* is the leading cause of rapidly, progressive, large-scale outbreak of gastroenteritis. The transmission is mainly faeco-oral associated with poor sanitation. Adamawa State is among Nigerian States that have reported frequent gastroenteritis in the past. In August, 2009 a suspected outbreak was reported in the State following floods in the northern parts. Over 2,000 people displaced and many of them with no access to clean drinking water. We conducted an outbreak investigations to confirm, the outbreak, described the magnitude in view to instituted public health control measures.

Methods: The nine reporting Local Government Areas (LGAs) were identified. we reviewed patient's hospital records, interviewed patients and health care workers, we conducted active case search in the communities and collected stools specimens from the suspected cases from reporting LGAs. Suspected case is defined as person of any age with profuse, effortless watery diarrhea with three or more stools in 24 hours residing in the affected areas of Adamawa State. A confirmed case is any suspected case with laboratory confirmation (presence of *Vibrio cholerae* in the stools). Data analysis was performed and cases were mapped.

Results: From 29th July to 10th October, 2009 a total of 2,373 cases with 204 deaths were reported, case fatality

persons but varies over week and by LGAs. Majority of the cases were aged 2-30 years {1,681 [71%] 2,373}. The attack rate among 2-30 years was {1,681[187.3] 897,580} per 100,000 populations. Of the 22 stools samples analyzed {15 [68.2%] 22} were positive for *vibrio cholerae* sero-group 01, Ogawa.

Conclusion: *Vibrio Cholerae* Serogroup 01, Ogawa was the cause of the outbreak that affected mostly age 2-30 years with high attack rate and Case Fatality Rate. Active case management, health education, environmental sanitation and decontamination of wells were mounted.

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Phenotypical profile against antibiotics of *Lactobacillus* sp isolated from artisanal cheeses

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Background: "Kopanisti" and "Tyrovolia" are traditional artisanal cheeses produced in Mykonos island, Greece, from raw unpasteurized milk of cows and ewes. Their organoleptic properties are exquisite and they are considered to be of high nutritional value. Our aim was to identify the lactobacilli composing the fermenting microflora of these cheeses and to evaluate their susceptibility against commonly used antibiotics.

Methods: Isolation and identification of the strains was performed by selective culture in MRS agar and by utilization of the API 50 test respectively. Phenotypical resistance was assayed by the broth microdilution method, curves were plotted against M.I.C s and deviation from the Gaussian distribution ("wild type" and "not wild type" strains) was assessed. Bimodal curves indicating separate subpopulation to the right end of the distributions, "hills", "valleys" and "tails" were the criteria of assessment. The antimicrobial agents in test represented all possible modes of pharmacological action and were the following: penicillin G, streptomycin, sulbactam/ampicillin, ampicillin, vancomycin, teicoplanin, erythromycin, clindamycin, oxytetracycline, chloramphenicol, gentamicin, metronidazole, trimethoprim, fusidic acid and quinopristin/dalfopristin.

Results: *Lactobacillus* dominating the microflora of these cheeses belongs to the following fifteen species: *L. acidophilus* (9.77%), *L. brevis* (4.89%), *L. curvatus* (3.16%), *L. helveticus* (7.47%), *L. plantarum* (13, 5%), *L. paraplantarum* (10.34%), *L. paracasei* (8.33%), *L. reuteri* (3.74%), *L. johnsonii* (2.01%), *L. delbrueckii subsp lactis* (7.18%), *L. delbrueckii subsp bulgaricus* (6.32%), *L. gasseri* (2.58%), *L. fermentum* (6.03%), *L. rhamnosus* (4.6%), and *L. pentosus* (10.5%).

Tentative ECOFF values are also proposed, often different than those proposed by SCAN and NCCLS. All species had